

X. *A new Hydroptila.* By MARTIN E. MOSELY, F.E.S.

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PLATE XVII.

Hydroptila simulans n. sp.

A year or two ago, when collecting Hydroptilidae in the neighbourhood of the river Test, Hampshire, I found, one autumn, amongst a large number of *Hydroptila sparsa* Curt., seven male examples which, though similar in general appearance to this species, showed considerable difference in the shape of the inferior appendages and a modification in the shape of the dorsal plate. Since then, some forty or fifty examples have turned up from the Test district, and one from the River Dove near Ashbourne.

The species appears to be plentiful on the River Colne, in the neighbourhood of Uxbridge, Middlesex.

In the accompanying notes on scent-organs in *Hydroptila* it will be seen that in *H. simulans* the form of this organ would alone warrant its separation from *H. sparsa*.

The specimens were collected in fluid and then mounted in Canada balsam: I am consequently precluded from describing the living insect.

The drawings were made from the preparations, the dorsal, ventral and lateral figures being from three different specimens.

Description of the ♂.

Expanse, $5\frac{1}{2}$ – $6\frac{1}{2}$ mm.; abdomen, green or brown.

Antennae about 31-jointed in the male, the head furnished with two large bivalvular lobes.

The scent-organs, which are everted from beneath the lobes, take the form of two tubular filaments clothed with yellow hairs. When partly everted the hairs are gathered together into a dense golden pencil or brush.

The dorsal plate is rather deeply excised and somewhat similar in form to that of *H. sparsa*, but the excision begins at the extreme angle of the plate, whereas in *H. sparsa* the hind margin is really produced from the hind angle and then abruptly excised. Towards the base of the plate are

two slight projections. Two processes with the outer margins sinuate arise from the edges of the ninth segment, parallel with and on each side of the base of the dorsal plate. From a lateral aspect these side pieces appear to be triangular. The penis towards its apex is bent sharply round at right angles to the main stem, resembling in this respect several other species in the genus. The inferior appendages are large, and, viewed laterally, the extremities are seen to be considerably broadened and furnished with two dark warts, or blunt spines, which, from a dorsal or ventral aspect, appear, one at the extreme apex, and the other a short distance below it. From the side one wart appears on the upper angle, and the other a short distance from the lower angle along the lower margin. The upper margin is armed throughout its length with five or six widely separated spines or strong hairs. There is a lightly chitinated ventral plate, somewhat excised towards the middle.

I have not been able to distinguish the ♀ from that of *H. sparsa*.

For purposes of comparison, figures of the genitalia of both *H. sparsa* and *H. simulans* are given.

I have in my collection two other British forms, slightly differing from *H. sparsa* in the shape of the dorsal plate and inferior appendages. Although I have four examples of each form, in none of them are the scent-organs everted. I am therefore deferring their description until more material comes to hand.

I am indebted to Dr. H. Eltringham, who kindly made the drawings for the accompanying plate.

EXPLANATION OF PLATE XVII.

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- FIG. 1. *Hydroptila simulans*, ♂. Genitalia from the side.
 2. " " " " above.
 3. " " " " beneath.
 4. " " Lobe of the head.
 5. " *sparsa*. Genitalia from the side.
 6. " " " " above.
 7. " " " " beneath.